

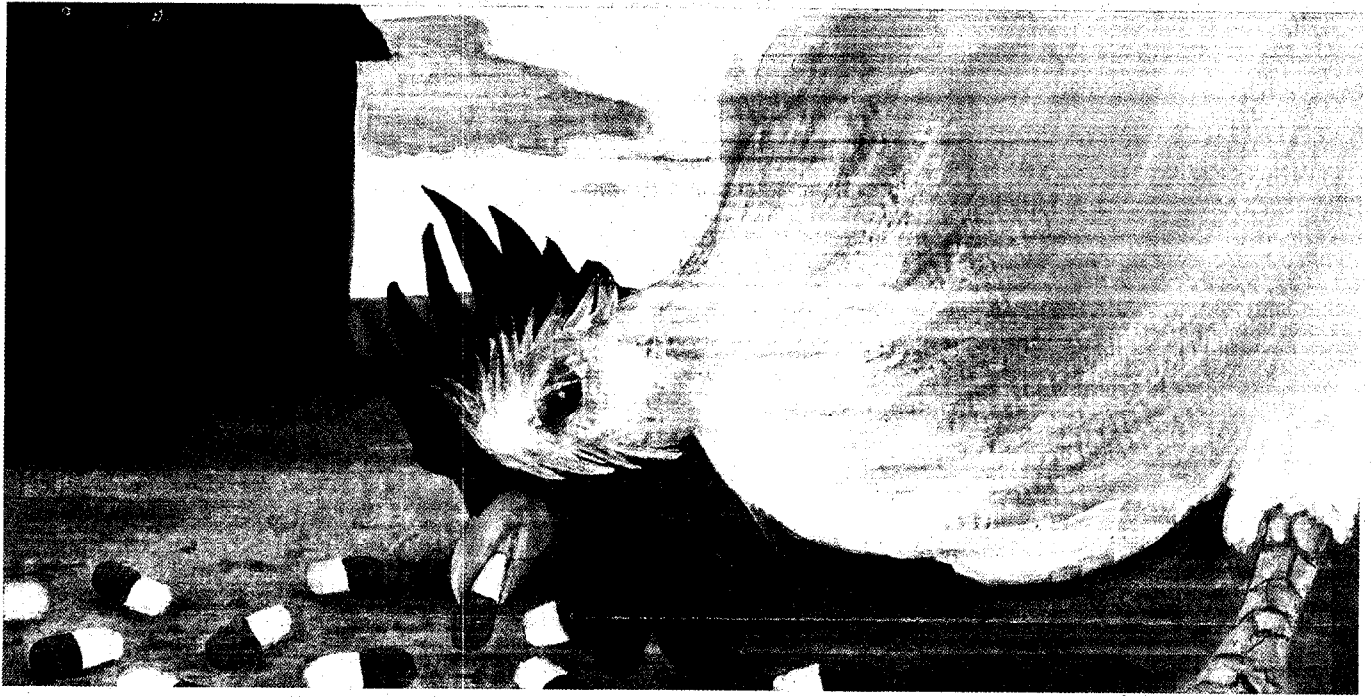
Dec. 99

Ban animal uses of growth-  
promoting antibiotics used  
in human <sup>2589 DEC JAN -6 AM 1:19</sup> medicine

Pay attention to the  
health of all of us.  
Elisabeth Farley

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## EUROPE JUST SAYS

# NO

By  
Margaret  
Mellon

Europe recently took bold measures to put public health ahead of commercial interests. In 1998, the European Union banned antibiotics important in human medicine from use as growth promoters in livestock production. The United States, facing the same threat and the same strong industry opposition, lags far behind in its response.

### The Threat

Imagine taking your child to the doctor for food poisoning, only to be told that it has spread to her bloodstream (a not infrequent complication of food poisoning) and that no antibiotics are available for treatment. The antibiotics on the pharmacist's shelf can't help her because the *Salmonella* bacteria making her ill have become

impervious to them. As far as your child is concerned, the once-formidable arsenal of miracle drugs is now a set of useless potions. Lacking effective antibiotics, she could become much more ill or even die.

This scenario is not farfetched. Evidence continues to mount that antibiotic arsenals are being depleted due to the development of resistant organisms. A recent two-year study of chicken from grocery stores in Minnesota connected a significant increase in antibiotic-resistant *Campylobacter* (a food-borne bacteria) to drug use in poultry production. The more microorganisms that become resistant to antibiotics, the greater the risk of a resurgence of untreatable infectious disease.

Public health officials and scientists know well the cause of resistance to antibiotics. It's overuse—not only in human medicine, the primary locus of the problem, but also in agriculture.

**Europe sets a precedent by banning the use of antibiotics to promote livestock growth.**



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In fact, the Centers for Disease Control consider the agricultural use of antibiotics to be the major cause of antibiotic resistance in food-borne illness.

It may come as a surprise, but something like 80 percent of agricultural antibiotics are used not to treat sick animals but merely to promote efficient growth of chickens, cows, and pigs. If society is to reduce its use of antibiotics to minimize the evolution of resistant organisms, growth promotion in agriculture is a good place to start. Its benefits are economic, not health-related—and minor in any case. Although antibiotic use is entrenched in modern livestock production, it is not essential for reasonably priced, high-quality meat.

### Action in Europe

While officials in the United States are beginning, timidly, to address this issue, the European Union has already taken decisive action. As of 1998, the EU prohibited use of all antibiotics used in human medicine for animal growth promotion. Furthermore, it authorizes only four antibiotics not used in human medicine for agricultural use without prescription. The United States, by contrast, allows 19 different antibiotics to be used for growth promotion. Of these, at least 7 drugs are used in human medicine, including penicillin, streptomycin, and virginiamycin.

European and multinational drug companies that stood to lose hundreds of millions of dollars from the EU's new regulations strongly opposed the ban. The manufacturers of virginiamycin and bacitracin sued for a repeal of the ban, but the suits were dismissed. Although the Centers for Disease Control in Atlanta has judged the EU's actions to be based on sound science, the US trade representative, apparently acting at the behest of US pharmaceutical and meat companies,

has threatened to challenge the ban as an illegal trade barrier before the World Trade Organization.

### Tales from Europe

The recent wave of EU activity on antibiotics followed the entry of Sweden and Finland—both countries with strong restrictions on antibiotic use in livestock—into the European Union. While joining the EU could have led to a watering down of standards in those countries, the opposite has happened. As EU member countries, Sweden and Finland retained

their own restrictions on antibiotics and asked that the EU “harmonize upwards” by removing more drugs from the EU list of authorized feed additives.

Their experience shows that the United States has much to gain—and to learn—from European success stories.

**Sweden.** Sweden's story began in 1985, when the Swedish Parliament banned all antibacterial growth promoters. According to the regulatory legislation, antibacterial agents could be dispensed only through veterinary

### A Vote of No Confidence

Europe also parts company with the United States on genetically modified food. Despite enormous pressure from Monsanto and a full-court press from the trade, agricultural, and regulatory arms of the US government, the Europeans have effectively said “No” to genetically engineered crops and food, at least for the time being.

This landmark event in the history of technology is the outcome of a spirited, far-flung public debate. In most European countries, the risks, benefits, ethics, and economics of genetically modified food (the term *genetically engineered* never caught on in Europe) have long been front-page news. French farmers and English lords have gone to jail for destroying GM crops. Major UK food retailers and food companies like Marks and Spencer, Sainsbury's, and Unilever have promised consumers entire lines of food free from GM ingredients.

So far, the European Union has (just barely) avoided a formal moratorium on engineered food. But it has effectively banned approvals of new genetically engineered crops until at least 2002. And it has indicated that if the United States makes good on its threat to go to the World Trade Organization over GM food, the EU is ready for a trade war.

Why do Europe and the United States see the technology so differently? “Mad cow” disease and recent food safety incidents involving tainted Coca-Cola and dioxin-contaminated meat have certainly played a part in creating European antipathy toward a questionable technology. In addition, attempts by Monsanto and the US government to bully European markets into accepting genetically modified food tapped Europe's disdain for America's economic and cultural hegemony. Finally, and perhaps most important, there's the lack of obvious benefit. Europe's consumers, blessed with abundant, diverse food, find it easy to forgo herbicide-tolerant soybeans.



prescription and used only to treat disease. Over the next 10 years, the amount of antimicrobial drugs administered to farm animals in Sweden dropped by 50 percent and the amount of antibacterial agents distributed in

feed concentrate—the route for growth promoters—by 90 percent.

Success wasn't automatic. Implementation of the ban in the swine industry got off to a rocky start. Previously, most piglets received antibiotics throughout their lives. During the ban's first year, piglet mortality increased and farmers demanded more antibiotics for therapeutic treatment—not a good tradeoff. To address this problem, forward-thinking swine producers developed new husbandry practices to reduce the need for antibiotic treatment. Some of the most important advances for piglet management focused on improved hygiene, including better ventilation and deep straw bedding.

The hard work paid off. By 1995–96, only a tenth of piglets were receiving antibiotics to treat disease. Swedish swine producers continued to improve their management systems and are now well on their way to achieving the production levels reached before the ban.

And the cost of meat? As of 1997, the growth-promoter ban and strict standards for animal health and antibiotic therapy added the equivalent of only a few cents per pound to the price of pork. The current consensus among Swedish farmers is that the ban will in time pay for itself through an increase in overall quality of production.

The Swedes have also succeeded in reducing antibiotic use in poultry production. Some of the most useful improvements include chicken houses with better ventilation and reformulated chicken feeds that provide less protein, more fiber, and enzyme supplements.

**Denmark.** The government of Denmark began developing a comprehensive plan to reduce antibiotic use in livestock systems in 1995, a decade later than Sweden. The Danish system also banned growth-promotion

uses and made antibiotics available only through veterinary prescription and from licensed pharmacies.


According to results presented at a recent scientific meeting, the Danish poultry industry, which produces 138 million broilers each year, remains productive and profitable without antibiotic growth promoters. Two measures of growth—average feed consumption per kg of bird weight and average weight at six weeks—actually increased slightly after the ban. Poultry prices have increased by the equivalent of only 1 cent per pound since the ban.

**United Kingdom.** In a welcome initiative from the private sector, Grampian Country Food Group, which produces 40 percent of UK-reared chickens, has announced that it will stop using antibiotic growth promoters as of January 1, 2000. Experiments have shown that decreasing stress by reducing crowding and improving cleanliness often alleviates the need for antibiotic growth promoters.

### An Example to Be Followed

The success enjoyed by Sweden and Denmark demonstrates that reduction of antibiotics in livestock systems need not come at the expense of the livestock industry or consumer pocket-books. But progress is not easy because it requires changes in established methods of livestock production. Yet change can happen if the government is willing to restrict antibiotic use and work with the livestock producers to develop new production methods. The benefits to public health in continued availability of life-saving antibiotics are well worth the effort. The United States should move quickly to follow the European lead. **N**

*Margaret Mellon is director of UCS's Agriculture and Biotechnology Program.*



## ACTION ALERT

### Tell the FDA to Say "No"

**ISSUE:** Overuse of antibiotics as growth promoters in livestock has been linked to the emergence of antibiotic-resistant diseases. Many of the drugs used to enhance growth in chickens, pigs, and cattle are the same as, or closely related to, those used to treat people.

Fearing a rise in untreatable infectious diseases, the European Union has banned all growth-promoting uses of antibiotics used in human medicine. In the United States, however, the Food and Drug Administration has taken no action against drugs currently in use. Instead, it has merely begun a series of meetings to discuss possible restrictions on new approvals of antibiotics.

**ACTION:** Urge the FDA to follow the EU's lead and move immediately to ban animal uses of growth-promoting antibiotics used in human medicine.

Write Jane Henney, M.D., Commissioner, Food and Drug Administration, 5600 Fishers Lane, Room 1471, Rockville, MD 20857 (fax 301-443-3100).

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